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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/655,345

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C. Steven McDaniel

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DAFFER MCDANIEL, LLP

P.O. BOX 684908

AUSTIN, TX 78768-4908

EXAMINER

SWOPE, SHERIDAN

ART UNIT

PAPER NUMBER

1652

MAIL DATE

DELIVERY MODE

10/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/655,345	<b>Applicant(s)</b> MCDANIEL, C. STEVEN	
	<b>Examiner</b> SHERIDAN SWOPE	<b>Art Unit</b> 1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 40-52, 55-62, 90-93, 99-101, 103-108, 120, 183-214, 313-318, 322, 357-359, and 386-388 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1, 15-28, 31-35, 37-39, 63, 65-67, 69-75, 79-89, 94-98, 102, 110-119, , 121-182, 215-256, 272, 309, 319-321, 323-356, 360-362, 365-373, 376-385, and 389-392 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 1,15-28,31-35,37-52,55-63,65-67,69-75,79-108,110-256,272,309,313-362,365-373 and 376-392.

### **DETAILED ACTION**

Applicants' Request for Continuing Examination of August 27, 2008, in response to the Final Rejection mailed February 27, 2008, is acknowledged. It is acknowledged that, with the response of August 27, 2008, Claims 1, 15-17, 43, 63, 65, 67, 69, 81, 82, 86, 222, 253, 254, 313-319, 344, 351-353, 355, 356, 360, 368-371, and 391 have been amended. Claims 2-14, 29, 30, 36, 53, 54, 64, 68, 76-78, 109, 257-271, 273-308, 310-312, 363, 364, 374, and 375 stand cancelled.

It is noted that, as stated in the action of January 12, 2006, the elected invention was originally directed to an aqueous paint comprising an enzyme not listed in groups (G)-(QQQ) of the original restriction mailed June 20, 2005, wherein the paint forms a film at ambient conditions. In addition, with the Request for Continuing Examination filed November 19, 2007, Applicants amended the examined claims to recite a paint comprising an organophosphorus hydrolase, original sub-invention (S). Said amendment was a change to the elected invention. Nonetheless in the interest of public service, with the Action of February 27, 2008, the Examiner prosecuted said amended invention, which was directed to an aqueous paint comprising an organophosphorus hydrolase, wherein the paint forms a film at ambient conditions.

Claims 1, 15-28, 31-35, 37-52, 55-63, 65-67, 69-75, 79-108, 110-256, 272, 309, and 313-362, 365-373, and 376-392 are currently pending. Based on the currently pending, amended claims and prior prosecution of an aqueous paint comprising an organophosphorus hydrolase, wherein the paint forms a film at ambient condition, the following Restriction/Election requirement is issued.

Art Unit: 1652

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121.

It is noted that Invention I was elected in the response of October 17, 2005. Inventions II-VIII were withdrawn with the action of January 12, 2006.

- I. Claims 1, 15-28, 31-35, 37-52, 55-63, 65-67, 69-75, 79-102, 110-256, 309, 322-356, and , drawn to a paint comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.
- II. Claim 313, drawn to an elastomer comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.
- III. Claim 314, drawn to a filler comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.
- IV. Claim 315, drawn to an adhesive comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.
- V. Claim 316, drawn to a sealant comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.
- VI. Claim 317, drawn to a material applied to a textile comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.
- VII. Claim 318, drawn to a wax comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.
- VIII. Claims 103-108, 357-359, and 386-388, drawn to a non-film forming coating comprising an esterase of EC 3.1.8, classified in class 106, subclass 15.05.

For Invention I above, restriction of the following is also required under 35 USC 121.

Art Unit: 1652

For Invention I, enzyme classification:

(A) EC 3.1.8.1-aryldialkylphosphatase/organophosphorus hydrolase (Claims 1, 15-28, 31-35, 37-39, 63, 65-67, 69-75, 79-108, 110-256, 309, 323-359)—elected by prior presentation.

(B) EC 3.1.8.2-diisopropylfluorophosphatase (Claims 43-52, 55-62, and 322)—herein withdrawn

(C) A carboxylase (Claims 40-42) —herein withdrawn (note: EC 3.1.8 does not comprise carboxylase)

Note: EC 3.1.8 comprises EC 3.1.8.1 and EC 3.1.8.2. EC 3.1.8.1 is aryldialkylphosphatase/organophosphorus hydrolase, while EC 3.1.8.2 is diisopropylfluorophosphatase. Neither EC 3.1.8.1 nor EC 3.1.8.2 comprises carboxylase. (see IUBMB Enzyme Nomenclature enclosed.)

- For Invention (A) above, elect one of:

One specific organophosphorus hydrolase protein recited in Claims 20-22, 24, 25, 28, 31-35, 37-39, and 63

- For Invention (A) above, elect one of:

One specific ion recited in Claim 23

- For Invention (A) above:

Film formation at -10C-40C/ambient conditions (Claims 88, 89)--elected in the response of October 17, 2005.

Film formation by baking (Claims 90-93, 120)—previously withdrawn

Film formation by cross-linking (Claims 99, 100)—previously withdrawn

Film formation by irradiation (Claims 101)—previously withdrawn

Art Unit: 1652

- For Invention (A) above:

Liquid/solvent component of water (Claims 123-131, 180-182, and 217)--elected in the response of October 17, 2005.

Liquid/solvent component of organic liquid (Claims 183-214)—previously withdrawn

- For Invention (A) above, elect one of:

Without any inorganic components

With inorganic components other than those of Claim 216

One of the inorganic components in Claim 216, or one specific combination thereof.

- For Invention (A) above, elect one of:

Without any organic components

With organic components other than those of Claim 218

One of the organic components in Claim 218, or one specific combination thereof.

- For Invention (A) above, elect one of:

Without a binder

With binder(s) other than those recited in Claims

One specific binder recited in Claims 133, 134, 136, 139, 141-144, 146, 147, 150, 151, 153, 155, 157, 159, 161, 165, 167, 169, 171, 174, 176, and 178.

If the binder of Claim 146 or 147 is elected, elect one component or one combination from Claim 148.

Art Unit: 1652

If the binder of Claim 150 or 151 is elected, elect one component or one combination from Claim 152.

If the binder of Claim 153 is elected, elect without or with an epoxide.

If the binder of Claim 155 is elected, elect one component or one combination from Claim 156.

If the binder of Claim 157 is elected, elect one component or one combination from Claim 158.

If the binder of Claim 159 is elected, elect one component or one combination from Claim 160.

If the binder of Claim 161 is elected, elect one component or one combination from Claim 162. If the binder of Claim 161 is elected, also elect without or with a cycloaliphatic epoxy. And, if with a cycloaliphatic epoxy is elected, elect without or with a polyol.

If the binder of Claim 165 is elected, elect one component or one combination from Claim 166.

If the binder of Claim 167 is elected, elect one component or one combination from Claim 168.

If the binder of Claim 169 is elected, elect one component or one combination from Claim 170.

If the binder of Claim 171 is elected, elect one component or one combination from Claim 172 and also elect one component or one combination from Claim 173.



Art Unit: 1652

If the binder of Claim 174 is elected, elect one component or one combination from Claim 175.

If the binder of Claim 176 is elected, elect one component or one combination from Claim 177.

If the binder of Claim 178 is elected, elect one component or one combination from Claim 179.

- For Invention (A) above, elect one of the following:

No additives

One additive recited in Claim 238(or one combination thereof), Claim 247, Claim 249, Claim 329, and Claim 334, and --

if preservative is elected, one from Claim 242 or 328,

if wetting agent is elected, one from Claim 331,

if dispersant is elected, one from Claim 333,

if emulsifier is elected, elect one or both from Claim 335

if a rheological control agent is elected, elect one from Claim 336

if corrosion inhibitor is elected, elect one from Claim 337 or 338

if light stabilizer is elected, elect one from Claim 340 or 342

Additive(s) other than those recited in Claims 238, 247, 249, 329, and 334

- For Invention (A) above, elect one of the following:

No plasticizer

One plasticizer recited in Claim 325,

Plasticizer(s) other than those recited in Claim 325

Art Unit: 1652

Inventions are distinct if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). Also, product and process inventions are distinct if any of the following can be shown: (1) that the process as claimed can be used to make another and materially different product, (2) that the product claimed can be used in a materially different process of using that product, or (3) that the product claimed can be made by another and materially different process (MPEP § 806.05(h)). These inventions are different or distinct for the following reasons.

As explained in the Restriction of June 20, 2005, Inventions I-VIII are distinct because the products of Inventions I-VIII are physically and functionally distinct chemical entities.

Sub-Inventions (A)-(C) are unrelated because the products of Sub-Inventions (A)-(C) are physically and functionally distinct chemical entities.

The specific organophosphorus hydrolase proteins recited in Claims 20-22, 24, 25, 28, 31-35, 37-39, and 63 are distinct because said proteins are physically and functionally distinct chemical entities.

The ions recited in Claim 23 are distinct because said ion are physically and functionally distinct chemical entities.

The film formation conditions listed above are distinct because they comprise different steps, utilize different products and/or produce different results.

The liquid/solvent components listed above are distinct because they are physically and functionally distinct chemical entities.

Art Unit: 1652

The inorganic components listed above are distinct because they are physically and functionally distinct chemical entities.

The organic components listed above are distinct because they are physically and functionally distinct chemical entities.

The binders listed above are distinct because they are physically and functionally distinct chemical entities.

The additives listed above are distinct because they are physically and functionally distinct chemical entities.

The plasticizers listed above are distinct because they are physically and functionally distinct chemical entities.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

(a) the inventions have acquired a separate status in the art in view of their different classification;

(b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

(c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

(d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

**Applicant is advised that the reply to this requirement to be complete must include (A) an election of (a) the organophosphorus hydrolase protein, (b) ion, (c) inorganic components, (d) organic components, (e) binder, (f), additive, and (g) plasticizer to be examined (as set forth above) even though the requirement may be traversed (37 CFR 1.143) and (B) identification of the claims encompassing the elected sub-inventions.**

The election of sub-inventions may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Claims 272, 319-321, 360-362, 365-373, 376-385, and 389-392 link Inventions I-VIII. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claims, Claims 272, 319-321, 360-362, 365-373, 376-385, and 389-392. Upon the allowance of the linking claim, the restriction requirement as to the linked inventions shall be

Art Unit: 1652

withdrawn and any claims depending from or otherwise including all the limitations of the allowable linking claim will be entitled to examination in the instant application. Applicants are advised that if any such claims depending from or including all the limitations of the allowable linking claim is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

To insure that each document is properly filed in the electronic file wrapper, it is requested that each of amendments to the specification, amendments to the claims, Applicants' remarks, requests for extension of time, and any other distinct papers be submitted on separate pages. It is also requested that Applicants put the serial number on every page of their response.

It is also requested that Applicants identify support, within the original application, for any amendments to the claims and specification.

Art Unit: 1652

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheridan L. Swope whose telephone number is 571-272-0943.

The examiner can normally be reached on M-F; 9:30-7 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Nashed can be reached on 571-272-0934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SHERIDAN SWOPE/  
Primary Examiner, Art Unit 1652